

DS #: 3402

APN: 137-22-000-010

PROJECT: SMRLN VILLAGE 23A - UNIT 2 IMP.

SUBMITTAL: 2ND

SCANNED BY/DATE: _____

CHECKED BY/DATE: _____



CITY OF LAS VEGAS				DATE:	
INTER-OFFICE MEMORANDUM				January 18, 2011	
TO: Land Development Services Department of Public Works				FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works	
SUBJECT: Technical Drainage Study for:				COPIES TO:	
Summerlin Village 23A - Unit 2 Improvements - Update				G.C. Wallace	
Cross Streets: Desert Foothills Drive & Alta Drive				Howard Hughes Corp.	
FILE NO.: F:\Depot\DSMEMOS\DS3402C.doc				Bart Anderson, P.E., DEVCO	
Parcel Number: 137-22-000-010				CCRFC	
Zoning Action:					
FEMA Flood Zone		YES	No	X	
Proposed Storm Drain		YES	X	No	
HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID
1 st Submittal	8/8/2003	8/26/2003	Conditional Approval	\$250.00	109118: \$250
CCRFC	10/9/2003	10/23/2003	Concurrence	N/C	N/C
2 nd Submittal	1/13/2011	1/18/2011	See Comments Below	\$100.00	160693: \$100
TOTAL FEES (LDDRS):				\$350.00	----

REMARKS:

The Drainage Study for the subject project has been reviewed and:

X	is approved subject to conformance to all City standards and the following conditions.
	must be resubmitted or supplemented including the following:
	Is conditionally approved subject to Clark County Regional Flood Control District concurrence

NOTE: Please be advised that all land surface area disturbances over 1 acre or any area adjacent to a water way must submit to the Nevada Division of Environmental Protection a "Notice of Intent" to discharge that certifies a stormwater pollution prevention plan has been developed and is maintained on site; for inclusion in the Stormwater General Permit No. NVR100000. A phased construction unit in a contiguous subdivision is considered under construction until all stripped or disturbed surface areas have been covered by paving, building construction or planting. For more information, including forms and applications see <http://ndep.nv.gov/bwpc/storm01.htm> or call (775) 687-9429.

NOTE: Any future changes to the proposed design (or design assumptions) as outlined in the approved drainage study and attached preliminary grading plan which affect drainage must be addressed in a Drainage Study Amendment and accepted by the City of Las Vegas Flood Control Section. Additionally, conditional acceptance of a drainage study is valid for a period of one (1) year. If the proposed construction has not been completed in that time period, the City of Las Vegas reserves the right to require additional conditions and/or submission and acceptance of a complete drainage study update prior to further construction of a project.

END OF REMARKS

B&S

T/R/S: T20S/R59E/34

AREA K-34

UPDATE TO THE
TECHNICAL DRAINAGE STUDY
FOR
SUMMERLIN VILLAGE 23A
UNIT 2 IMPROVEMENTS

DS 3402-1

~~DS 4050-1~~

1/12/10

62023-980

January 2011

\$100 -
K 34

Prepared for:

The Howard Hughes Corporation
10000 W. Charleston Blvd., Suite 200
Las Vegas, Nevada 89135
Phone: (702) 791-4200
Fax: (702) 791-4450



G. C. WALLACE COMPANIES
ENGINEERS | PLANNERS | SURVEYORS

HYDROLOGIC CRITERIA AND DRAINAGE MANUAL

DRAINAGE STUDY INFORMATION FORM

Name of Development: Summerlin Village 23A Unit 2 Improvements (Update) Date: January 2011
 Location of Development a) Descriptive (Cross Streets) North/South: Fox Hill Drive
 East/West: Paseo Breeze Drive
 b) Section: 34 Township: 20 S Range: 59 E
 c) APN: 137-34-299-001

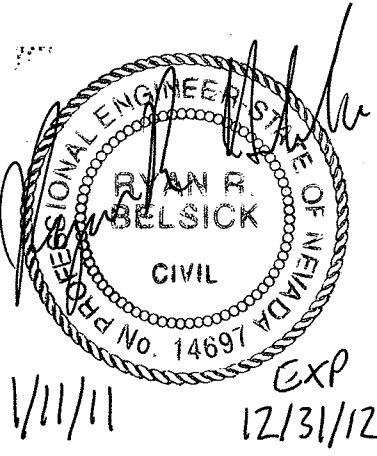
Name of Owner: The Howard Hughes Corporation
 Telephone No.: (702) 791-4200 Fax No. (702) 791-4450 E-Mail Address: Not available
 Address: 10000 W. Charleston Blvd Ste. 200: Las Vegas, Nevada 89135

Contact Person-Name: Ryan Belsick Telephone No.: (702) 804-2129
 * E-Mail Address: rbelsick@gcwallace.com Fax No.: (702) 804-2299
 Firm: G. C. WALLACE COMPANIES
 Address: 1555 S. Rainbow Blvd: Las Vegas, NV 89146

Type of Land Development/Land Disturbance

☐	Rezoning	☒	Subdivision Map	☐	Clearing and Grading Only
☐	Parcel Map	☐	Planned Unit Development	☒	Other (Please specify below)
☐	Large Parcel Map	☐	Building Permit		Technical Drainage Study Update

- Total Owned Land Area: At Site: +/- 410 acres Being Developed/Disturbed: +/- 8 acres
- Is a portion or all of the subject property located in a designated FEMA Flood Hazard Area? ☐ Yes** ☒ No
- Is the property bordered or crossed by an existing or proposed Clark County Regional Flood Control District Master Planned Facility? ☐ Yes** ☒ No
- Proposed type of development (Residential, Commercial, Etc.): Road Improvements
- Approximate upstream land area which drains to the subject site: +/- 15 acres
- Has the site drainage been evaluated in the past? ☒ Yes ☐ No If yes, please identify documentation: Update #2 to the Technical Drainage Study for Summerlin Village 23A Parcel L - Andalusia, 2010, GCW; Technical Drainage Study for Summerlin Village 23A Unit 1 Improvements, 2003, GCW; Technical Drainage Study for Summerlin Village 23A Unit 2 Improvements, 2003, GCW; Technical Drainage Study for Summerlin Village 23A - Rough Grading, 2002, GCW; Conceptual Drainage Study for Summerlin Village 23A, 2002, GCW.
- If known, please briefly identify the proposed discharge point(s) of runoff from the site: Existing private storm drain in Paseo Breeze Drive.
- Briefly describe your proposed schedule for the subject project: ASAP

 Engineer's Seal	Submit this form as part of the required drainage study to the local entity which has jurisdiction over the subject property. This form may provide sufficient information to serve as the Conceptual Drainage Study. *New Required Field **Review and concurrence of the Clark County Regional Flood Control District is required. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">Local Entity File No.</th> <th style="width: 20%;">Revision</th> <th style="width: 20%;">Date</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	Local Entity File No.	Revision	Date									
Local Entity File No.	Revision	Date											
REFERENCE:	STANDARD FORM 1												



CITY OF LAS VEGAS

MINIMUM DRAINAGE STUDY CRITERIA STANDARD FORM 2 CHECKLIST SUPPLEMENT

(Revised 06/06/01)

The following checklist is intended as a supplemental **guide** for the engineer preparing a Technical Drainage Study submittal to the City of Las Vegas. This supplement focuses on requirements specific to the City of Las Vegas. The requirements presented are in addition to the Clark County Regional Flood Control District Manual Standard Form 2. The listed items are the minimum information required prior to the City performing a review. The engineer will remain responsible to ensure the Technical Drainage Study is prepared within the guidelines as set forth in the Clark County Regional Flood Control District (CCRFCD) Hydrologic Criteria and Drainage Design Manual (Design Manual).

If items are not applicable for the subject site, provide N/A.

I. GENERAL REQUIREMENT		
Yes	No	
	NA	A notarized letter from the adjacent property owner(s) allowing off-site grading. (A copy of the letter must be received prior to final acceptance of the drainage study.)
x		Copies of all conditions of approval for development related to this property. (e.g. zoning, use permit, tentative map, etc.) Verify compliance with conditions.

II. GRADING PLAN INFORMATION		
Yes	No	
x		(1) 24" X 36" copy of the Grading Plan, (including all Detail Sheets) sealed by the engineer.
x		Proposed future and existing spot grades for top of curbs and street crowns at lot lines, grade breaks, and along curb returns on both sides of the street. Note: Proposed top of curb elevations must be provided for both sides of roadways even if only half street construction is required.
x		Label existing topography at a minimum 5 foot elevation interval including adjacent developments, finished floor elevations of existing buildings and top of existing curbs extending 100 feet around the perimeter of the site. (*Measured from the centerline of the adjacent roadway.)
x		Proposed on-site and off-site storm drains and other flood control facilities with plan and profile sheets for public storm drains showing the class of pipe, (Class III, IV, V, etc.), design hydraulic grade line, (HGL) and 100 year storm flow. A public drainage easement must be provided over on-site storm drains conveying off-site flows. An overflow path must be provided over all storm drains.
x		All existing and "to be constructed" walls with cross-sections showing wall type, (e.g. block wall, retaining wall, flood wall, etc.), with limits clearly defined, adjacent ground elevations. Wall heights must meet current ordinances and in no case exceed 14 feet above the adjacent property.
x		Street slopes for both interior and perimeter streets. Note: The minimum slope for a roadway is 0.4 percent, a minimum 18-inch storm drain must be provided where minimum slopes cannot be met.

CITY OF LAS VEGAS MINIMUM DRAINAGE STUDY CRITERIA CHECKLIST

62023-980

II. GRADING PLAN INFORMATION		
Yes	No	
	NA	Back of lot elevations and lot drainage pattern for all lots including common lots.
x		Sites with a grade difference two feet above or below existing ground are required to have approval from City of Las Vegas Current Planning. Current Planning approval is required prior to final approval of the drainage study.
x		On-site facilities must perpetuate flows through or around the site without significantly impacting adjacent property owners. (The project must pass flows through the site every 600 feet where the project is blocking flow paths.)
x		This project uses a solid grouted stem wall (or approved alternate) at the back of sidewalk to provide erosion protection for landscaped areas where the depth of flow in the roadway exceeds the back of walk elevation. A corresponding cross-section detail is included.
x		Commercial and Common Lot Landscape areas are not allowed to drain over the sidewalk. The grading plans show flow lines with grades and sidewalk under drains for all landscape areas draining to the public ROW.

III. Local Entity Criteria - City of Las Vegas – Manual Section 1600		
Yes	No	
	NA	Concrete valley gutters are required in parking lots with slopes less than 1 percent. Slopes through cul-de-sac must be at a 1 percent minimum where flow is drained through the cul-de-sac.
	NA	Ten-foot wide public drainage easements to be privately maintained are allowed for flow less than 20 cfs. The depth of flow entering the easement must be checked using the submerged weir calculation.
	NA	The limits of the flood zones and the base flood elevations (BFE) must be shown on all grading plans for all developments within a Special Flood Hazard Zone A, AO, AE, etc.
	NA	Minimum finish floor elevation is 6 inches above highest adjacent top of curb. Finish floor calculations must include allowances for super elevations on curves and velocity head for tee intersections.
	NA	Finished floor elevations for buildings adjacent to public drainage easements must be a minimum of 18 inches above the Q100 weir of submerged weir elevation, whichever is greater.
	NA	Lots with "B and C Type Drainage" shall be required to install an underground nuisance drainage system or a 2-foot valley gutter through the lot. 16" x 24" minimum block wall openings are required for both options.
	NA	Bubblers are required across 80 foot and greater ROW streets. When flows exceed 10 cfs, bubblers larger than 18 inches will be required up to a maximum of 36". Inlets must be sized to match the pipe size provided.

- An appointment must be made to preview this checklist in conjunction with Clark County Regional Flood Control District Manual Standard Form 2 prior to the City accepting a new Drainage Study for review. The engineer may contact the Flood Control Section at 229-6541.

CITY OF LAS VEGAS MINIMUM DRAINAGE STUDY CRITERIA CHECKLIST

62023-980

- Following the acceptance of the Drainage Study (meeting the minimum acceptable information above), there will be a charge of \$250 for each Drainage Study review submittal. These fees are payable at the time the Grading Permit is obtained.
- The Drainage Study must be accepted prior to submitting grading plans to the Land Development Section for review.

This document is intended as an **aid** in preparing Technical Drainage Studies for the City of Las Vegas. Each study submitted is reviewed for compliance with local and regional criteria. This form is not intended to be all-inclusive and does not limit the extent of the information, calculations or exhibits which may be necessary to properly evaluate the intended land use.

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11-Jan-11

**UPDATE TO THE
TECHNICAL DRAINAGE STUDY
FOR
SUMMERLIN VILLAGE 23A
UNIT 2 IMPROVEMENTS**

62023-980

January 2011

Prepared for:

**The Howard Hughes Corporation
10000 W. Charleston Blvd., Suite 200
Las Vegas, Nevada 89135
Phone: (702) 791-4200
Fax: (702) 791-4450**

Prepared by:

**G. C. Wallace Companies
1555 S. Rainbow Blvd.
Las Vegas, Nevada 89146
Phone: (702) 804-2000
Fax: (702) 804-2299**

62023-980

January 11, 2011

Writer's Contact Information:

702.804.2248

Albert Y. Sung, PE
Flood Control Project Manager
City of Las Vegas - Land Development Services
Department of Public Works
731 South Fourth Street
Las Vegas, NV 89101

Re: Technical Drainage Study for Summerlin Village 23A, Unit 2 Improvements

Dear Mr. Sung:

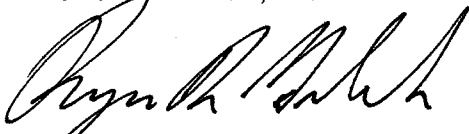
The purpose of this letter is to serve as the first update to the Technical Drainage Study for the subject project. The *Technical Drainage Study for Summerlin Village 23A, Unit 2 Improvements* (hereinafter referred to as the Unit 2 Study), was originally approved by the City of Las Vegas Public Works Department (CLV) on September 5, 2003, with concurrence from the Clark County Regional Flood Control District (CCRFCD) on October 6, 2003. This update includes storm drain revisions within Paseo Breeze Drive. The proposed storm drain revisions include moving Manhole SDMH#11 approximately 55-feet east and adding 60 linear feet of an 18-inch RCP stub to provide flexibility to collect flows from the future Pedestrian Paseo (Parcel COS-2). The *Update #2 to the Technical Drainage Study for Summerlin Village 23A, Parcel L - Andalusia* (hereinafter referred to as the Andalusia Update #2 Study) was approved by the CLV on December 17, 2010. The Andalusia Update #2 Study reduced the total flow within the Paseo Breeze Drive storm drain mainline from 57 cfs to 51 cfs; therefore, the additional 18-inch RCP stub proposed with this package will have the future flexibility to collect 6 cfs. Since Subbasin COS-2 from the Unit 2 Study generates a total flowrate of 5 cfs, the proposed 18-inch RCP stub will be adequate to collect the flows generated by Subbasin COS-2. The grading plans provided herewith will supersede those of the Unit 2 Study and serve to update the previously approved study. Pertinent reference materials have been included in Appendix A. Copies of the approval letters and zoning/planning conditions have been included in Appendix A. It should be noted that no hydrologic or hydraulic calculations have been revised with this update; however, the detailed grading for Parcel COS-2 was submitted to the CLV on January 4, 2011, with the *Update #3 to the Technical Drainage Study for Summerlin Village 23A, Parcel L - Andalusia* (hereinafter referred to as the Andalusia Update #3 Study).

In general, the proposed Unit 2 Improvements do not significantly alter existing peak flows or the character of flows downstream of the development and do not pose any negative impacts on downstream facilities and development.

If you have any questions or require additional information, please contact our office at 804-2000.

Cordially,

G. C. WALLACE, INC.



Ryan R. Belsick, PE, LEED AP
Vice President
Flood Control Division



Rachael R. Dennis, PE
Project Engineer
Flood Control Division

rrd/vlr

c: Jerry Pruitt, GCW
Josh Johnson, GCW
Jonathan Tull, GCW

**UNIT 2 IMPROVEMENTS, SUMMERLIN V23A
APPENDIX LAYOUT**

Appendix A. Referenced Material and Supporting Documents

1. Update #2 to the Technical Drainage Study for Summerlin Village 23A, Parcel L - Andalusia
 - a. CLV Approval Letter (DS 3712H)
 - b. Discussion of Paseo Breeze Drive Storm Drain
 - c. Figure 5R2 – Ultimate Conditions Drainage Map
2. CLV Zoning and Planning Conditions
3. Technical Drainage Study for Summerlin Village 23A Unit 2 Improvements
 - a. CLV Approval Letter (DS 3402A)
 - b. CCRFCD Concurrence Letter
 - c. Figure 5 – Drainage Basins Map
 - d. Figure 6 – Drainage Facilities Map
 - e. Discussion of Paseo Breeze Drive Storm Drain Lateral
 - f. Paseo Breeze Drive Mainline Standard Form 6 Calculation

**RESPONSE TO COMMENTS
ON THE
UPDATE #2 TO THE
TECHNICAL DRAINAGE STUDY
FOR
SUMMERLIN VILLAGE 23A
PARCEL L - ANDALUSIA**

62023-981

November 2010

Prepared for:

**The Howard Hughes Corporation
10000 W. Charleston Blvd, Suite 200
Las Vegas, Nevada 89135
Phone: (702) 791-4200
Fax: (702) 791-4450**



G. C. WALLACE COMPANIES
ENGINEERS | PLANNERS | SURVEYORS

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM

DATE:

December 17, 2010

TO:

Land Development Services
Department of Public Works

FROM:

Albert Sung, P.E.
Flood Control Project Engineer
Department of Public Works

SUBJECT:

Technical Drainage Study for:
Summerlin V23A (Parcel L) – Andalusia – Update #2

COPIES TO:

G.C. Wallace
Howard Hughes Corporation
Bart Anderson, P.E., DevCo
CCRFCFCD

Cross Streets:

SEC of Alta Drive & Fox Hill Drive

File Number:

F:\Depot\DSMEMOS\DS3712H.doc

Parcel Number:

137-34-210-002

Zoning Action:

TMP-39472

FEMA Flood Zone

YES

NO

X

Proposed Storm Drain

YES

X

NO

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Trn. No.
1 st Submittal	12/13/2004	12/28/2004	Not Approved	\$400.00	13510: \$400
2 nd Submittal & Supplemental	1/11/2005 & 3/21/2005	3/30/2005	Conditional Approval	\$400.00	14695: \$400
CCRFCFCD	5/31/2005	6/1/2005	Concurrence Recv'd	N/C	N/C
3 rd Submittal	3/27/2006	4/10/2006	Not Approved	\$100.00	42284: \$100
4 th Submittal	6/1/2006	6/15/2006	Approved	\$400.00	Paid: \$400
5 th Submittal	9/21/2010	10/5/2010	Not Approved	\$400.00	153953: \$400
6 th Submittal	11/23/2010	12/1/2010	Conditional Approval	\$400.00	158004: \$400
7 th Submittal	12/17/2010	12/17/2010	Concurrence Recv'd	N/C	N/C
TOTAL FEES (LDDRS):				\$2,100.00	—

REMARKS:

7th Submittal: CCRFCFCD Concurrence Letter Received5th & 6th Submittals: Update #2 & Addendum for a minor revision of a Tentative Map (from 90-Lot to 81-Lot)3rd & 4th Submittals: Update & Addendum to change site layout

The Drainage Study for the subject project has been reviewed and:

X	is approved subject to conformance to all City standards and the following conditions:
	must be resubmitted or supplemented including the following:
	is conditionally approved subject to Clark County Regional Flood Control District concurrence.

The following comments are repeated until they are complete:

- The subject update study presumes that the perimeter streets will be fully constructed prior to or concurrently with the development of this project. No occupancy permits will be issued until the perimeters and the associated facilities are fully improved.
- All drainage easements must be public drainage easements to be privately maintained and common lots to be labeled on the grading plans and to be dedicated as such in the final map.

DEC 17 2010 FRI 01:55 PM CITY OF LAS VEGAS FAX NO. 7023020001 11 01/02

NOTE: Any future changes to the proposed design (or design assumptions) as outlined in the approved drainage study and attached preliminary grading plan which affect drainage must be addressed in a Drainage Study Amendment and accepted by the City of Las Vegas Flood Control Section. Additionally, conditional acceptance of a drainage study is valid for a period of one (1) year. If the proposed construction has not been completed in that time period, the City of Las Vegas reserves the right to require additional conditions and/or submission and acceptance of a complete drainage study update prior to further construction of a project.

NOTE: Please be advised that all land surface area disturbances over 1 acre or any area adjacent to a water way must submit to the Nevada Division of Environmental Protection a "Notice of Intent" to discharge that certifies a stormwater pollution prevention plan has been developed and is maintained on site; for inclusion in the Stormwater General Permit No. NVR100000. A phased construction unit in a contiguous subdivision is considered under construction until all stripped or disturbed surface areas have been covered by paving, building construction or planting. For more information, including forms and applications see <http://ndep.nv.gov/bwpc/storm01.htm> or call (775) 687-9429.

END OF REMARKS
ays

T/R/S: T20S/R59E/34
AREA K-34

Post-It® Fax Note 7671		Date 12/17/10	# of pages 2
To Rachael Dennis	From Albert Sung		
Co./Dept. GCW	Co. CLV		
Phone #	Phone # 229-2001		
Fax # 804-2299	Fax #		

running from west to east within Alta Drive. The existing regional facility within Alta Drive and the existing rough grading of Alta Drive was constructed with the *Technical Drainage Study for Summerlin Villages 23A/23B Alta Drive RCB Regional Drainage Improvements* (hereinafter referred to as the Alta RCB Study). It should be noted that flows generated onsite will not discharge into the existing regional facility. Flows generated onsite will discharge south to the existing storm drain within Paseo Breeze Drive. Pertinent reference materials have been included in Appendix C.

With the proposed decrease in total lot count onsite, the average lot size was increased to a 9,000 square foot lot (previous study assumed 7,000 square foot lots). Average lot size calculations have been included in Appendix A. The result of the increased lot size was a decrease in the onsite residential curve number (CN) and an overall decrease in flow generated onsite. For the given soils, CN values were determined from the appropriate columns of Tables 602 and 602A of the Manual. A curve number of 84.3 was determined for the ultimate conditions onsite subbasins. Curve number calculations have been included in Appendix A.

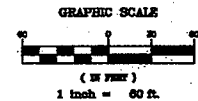
The onsite hydrology has been revised with this report to correspond with the grading shown on the proposed Andalusia Improvement Plans. In general, the approved drainage patterns remain unchanged. Figure 5R2 shows the onsite subbasins and drainage patterns for the ultimate onsite developed conditions. A copy of the ultimate onsite conditions HEC-1 model has been included in Appendix A. Pertinent reference materials have been included in Appendix A and C. The results of the ultimate conditions onsite HEC-1 model have been included in Table 1.

TABLE 1 Summary of Ultimate Conditions Onsite HEC-1 Model			
Subbasin or Concentration Point*	Area (ac)	Q ₁₀₀ (cfs)	Q _m (cfs)
ON1	13.1	32	12
ON2	7.4	19	7
CP1	-	51	19

*See Figure 5R2.

Subbasins ON1 and ON2 will discharge a total flowrate of 51 cfs (CP1) to the proposed low point located at the southeast corner of the site. Flows at Concentration Point CP1 will be collected by onsite storm drain and discharged into an existing 42-inch RCP storm drain lateral that was constructed with the *Technical Drainage Study for Summerlin Village 23A Unit 2 Improvements* (hereinafter referred to as the Unit 2 Study). The existing 42-inch RCP was designed in the Unit 2 Study to convey 57 cfs into the existing storm drain within Paseo Breeze Drive. Since the total flowrate generated by the site has been decreased by 6 cfs from the previous study, the reduced flows (51 cfs) to this existing lateral will not have an adverse impact on the downstream drainage facilities or properties. Pertinent reference materials have been included in Appendix C.

The calculated flow rate for the onsite streets have been revised slightly due to onsite hydrology revisions proposed with this report. Updated normal depth calculations for the onsite streets, ditches and



LEGEND

- BASIN BOUNDARY
- PRORATED SUBBASIN
- ON1 BASIN DESIGNATION
- CP1 COMBINATION POINT
- FLOW DIRECTION
- SECTION

SUMMARY OF ULTIMATE CONDITIONS HEC-1 MODEL			
	AREA (AC)	Q ₁₀₀ (CFS)	Q ₁₀₀ (MGD)
ON1	13.1	32	12
ON2	7.4	19	7
CP1		51	18

100-YEAR STORM PRORATED FLOW SUMMARY			
Subbasin*	Q ₁₀₀ (cfs)	Area (acres)	cfs/acre
ON1	32	13.1	2.44
ON2	19	7.4	2.57
Subbasin* Q₁₀₀ (cfs) Area (acres) cfs/acre			
ON1A	1	0.5	2.44
ON1B	9	3.5	2.44
ON1C	16	6.7	2.44
ON1D	6	2.3	2.44
TOTAL	32	13.1	NA
ON2A	3.5	1.4	2.57
ON2B	15.5	6.0	2.57
TOTAL	19	7.4	NA

100-YEAR STREET/DITCH FLOW CHARACTERISTICS PROPOSED CONDITIONS					
Section	Slope (%)	Depth (ft)	Velocity (ft/s)	Q ₁₀₀ (cfs)	Q ₁₀₀ (MGD)
Cross Section A-A (min slope)	0.50	3.5	0.38	1.76	0.6
Cross Section A-A (max slope)	6.00	3.5	0.28	4.55	1.2
Cross Section B-B	3.50	10	0.30	4.02	1.2
Cross Section C-C	2.60	16	0.36	4.01	1.4
Cross Section D-D	1.87	32	0.47	4.23	2.0
Cross Section E-E	4.27	19	0.35	5.03	1.8
5' Easement (Emergency Overflow)	1.80	51	0.55	4.85	2.7
Ditch ON1A (min slope)	0.50	1	0.35	4.15	1.5
Ditch ON1A (max slope)	7.20	1	0.47	1.54	0.7
Section FH1*	1.60	5	0.30	2.80	0.8
Section COS1*	2.00	5	0.30	2.60	0.8
Section 3*	5.30	13	0.40	5.10	2.0
Section 12*	2.70	15	0.40	4.10	1.6
Section ALTA-2A**	3.70	10	0.35	4.15	1.5
Section ALTA-2B**	3.70	10	0.35	4.15	1.5

*Values referenced from the Andalusia TDS.
 **Values referenced from the Alta Improvements Study.

G.C. WALLACE, INC.
 Engineers/Planners/Surveyors
 1555 SOUTH RAINBOW BLVD., LAS VEGAS, NEVADA 89146
 TELEPHONE: (702) 804-2000 • FAX: (702) 804-2299
 E-MAIL: GOW@GOWINC.COM

SUMMERLIN VILLAGE 23A
 PARCEL L - ANDALUSIA
 FIGURE 5R2
 ULTIMATE CONDITIONS DRAINAGE MAP

November 19, 2010

Ms. Julie Cleaver
The Howard Hughes Company
10000 West Charleston Boulevard, Suite #200
Las Vegas, Nevada 89135

**RE: TMP-39472 - TENTATIVE MAP - VILLAGE 23A - PARCEL L -
ANDALUSIA
PLANNING COMMISSION MEETING OF NOVEMBER 18, 2010**

Dear Ms. Cleaver:

Your request for a Tentative Map FOR AN 81-LOT SINGLE-FAMILY RESIDENTIAL SUBDIVISION on 26.9 acres adjacent to the south side of Alta Drive, between Desert Foothills Drive and Fox Hill Drive (APNs 137-34-621-001, 137-34-210-002 and 007), P-C (Planned Community District) Zone [SF3 (Single Family Detached) Summerlin West Land Use Designation], Ward 2 (Wolfson), was considered by the Planning Commission on November 18, 2010.

The Planning Commission voted to **APPROVE** your request, subject to the following:

Planning and Development

1. Approval of the Tentative Map shall be for no more than four (4) years. If a Final Map is not recorded on all or a portion of the area embraced by the Tentative Map with four (4) years of the approval of the Tentative Map, this action is void.
2. Street names must be provided in accordance with the City's Street Naming Regulations. Per the Las Vegas Fire & Rescue Department, Street names may not start with the word, "Via". Street names will have to be changed prior to the Final Map being recorded.
3. In conjunction with creation, declaration and recordation of the subject common-interest community, and prior to recordation of the Covenants, Codes and Restrictions ("CC&R"), or conveyance of any unit within the community, the Developer is required to record a Declaration of Private Maintenance Requirements ("DPMR") as a covenant on all associated properties, and on behalf of all current and future property owners. The DPMR is to include a listing of all privately owned and/or maintained infrastructure improvements, along with assignment of maintenance responsibility for each to the common interest community or the respective individual property owners, and is to provide a brief description of the required level of maintenance for privately maintained components. The DPMR must be reviewed and approved by the City of Las Vegas Department of Field Operations prior to recordation, and must include a statement that all properties within the community are subject to assessment for all associated costs should private maintenance obligations not be met, and the City of Las Vegas be required to provide for said maintenance.

PLANNING &
DEVELOPMENT

PLANNING SERVICES CENTER

Fourth Street
Las Vegas, NV 89101

702-229-6301
702-474-0352
702-386-9108

lvegasnevada.gov

Mayor B. Goodman

Council

City Manager

City Clerk

City Attorney

City Engineer

City Planner

City Surveyor

City Treasurer

City Auditor

City Historian

City Librarian

City Archivist

City Records Manager

City Information Systems Manager

City Facilities Manager

City Maintenance Manager

City Parks and Recreation Manager

City Public Works Manager

City Transportation Manager

City Utilities Manager

City Environmental Manager

Also, the CC&R are to include a statement of obligation of compliance with the DPMR. Following recordation, the Developer is to submit copies of the recorded DPMR and CC&R documents to the City of Las Vegas Department of Field Operations.

4. All development is subject to the conditions of City Departments and State Subdivision Statutes.

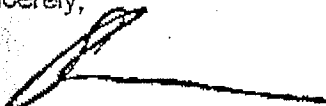
Public Works

5. All Private streets must be granted as public utility easements (P.U.E.), City of Las Vegas Sewer Easements and Public Drainage Easements to be privately maintained by the Homeowners' Association on the Final Map for this site. Additionally, grant appropriate public easements across Common Lots A, H, and I.
6. The Final Map for this site shall be labeled as a "Merger and Resubdivision".
7. A Homeowner's Association shall be established to maintain all perimeter walls, private roadways, landscaping and common areas created with this development. All landscaping shall be situated and maintained so as to not create sight visibility obstructions for vehicular traffic at all development access drives and abutting street intersections.
8. The submitted drainage study shall be approved prior to the recordation of a Final Map for this site.
9. A minimum of two lanes of asphalt pavement on Paseo Breeze Drive and Fox Hill Drive adjacent to this site, and a working sanitary sewer connection shall be in place prior to final inspection of any units within this development. Full permanent improvements on Paseo Breeze Drive and Fox Hill Drive, including all required landscaped areas between the perimeter wall and adjacent public street, shall be constructed and accepted by the City prior to issuance of any building permits beyond 50% of all units within this development. All off-site improvements for Paseo Breeze Drive and Fox Hill Drive adjacent to this site, including all required landscaped areas between the perimeter walls and adjacent public streets, shall be constructed and accepted prior to issuance of building permits beyond 75%. The above thresholds notwithstanding, all required improvements shall be constructed within 24 months of approval of construction drawings unless otherwise allowed by the Department of Public Works.
10. The Special Improvement District section of the Department of Public Works must be contacted (229-2136) prior to the recordation of a Final Map or the issuance of any building permits, whichever may occur first. An apportionment report will be prepared following recordation of the Final Map to recalculate and/or redistribute all assessments of record on this site.

11. The design and layout of all onsite private circulation and access drives shall meet the approval of the Department of Fire Services prior to the issuance of any permits.
12. Site development to comply with all applicable conditions of approval for Summerlin Village 23A, CRG-2243 and all other applicable site-related actions.
13. The approval of all Public Works related improvements shown on this Tentative Map is in concept only. Specific design and construction details relating to size, type and/or alignment of improvements, including but not limited to street, sewer and drainage improvements, shall be resolved prior to approval of the construction plans by the City. No deviations from adopted City Standards shall be allowed unless specific written approval for such is received from the City Engineer prior to the recordation of a Final Map or the approval of subdivision-related construction plans, whichever may occur first. Approval of this Tentative Map does not constitute approval of any deviations. If such approval cannot be obtained, a revised Tentative Map must be submitted showing elimination of such deviations.

This action by the Planning Commission on **November 18, 2010** is final unless a written appeal is filed with the City Clerk within seven days of the date of the Planning Commission's decision as allowed by code or there is a review action filed by the City Council within the same time period. For additional information on appeals or review requests please access <http://www.lasvegasnevada.gov/CheckStatus/DevelopmentApp.htm>, or contact the Department of Planning and Development at 702.229.6301 after **November 29, 2010**. No building permits or business licenses related to these items shall be issued prior to the expiration of the required ten day waiting period, or until any filed appeal is resolved pursuant to LVMC Title 19.18.

Sincerely,



Steve Gebeke, AICP
Planning Supervisor
Case Planning Division

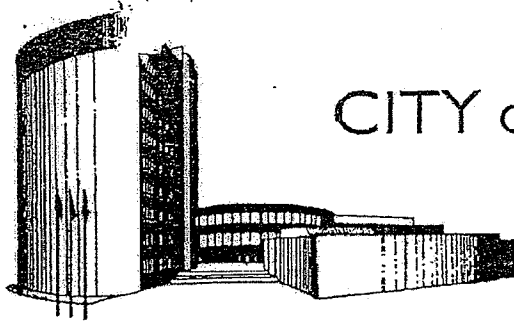
SG:dlb

cc: Mr. Josh Johnson
GC Wallace, Inc.
1555 South Rainbow Boulevard
Las Vegas, Nevada 89146

MAYOR
JAN LAVERTY JONES

COUNCILMEN
ARNIE ADAMSEN
MATTHEW Q. CALLISTER
MICHAEL J. McDONALD
GARY REESE

CITY MANAGER
LARRY K. BARTON



CITY of LAS VEGAS

February 11, 1997

Mr. Jeffery S. Geen
Howard Hughes Properties, Limited Partnership
1645 Village Center Circle, Suite 200
Las Vegas, Nevada 89134

RE: Z-119-96 - REZONING RECLASSIFICATION RELATED TO GPA-52-96

Dear Mr. Geen:

The City Council at a recessed meeting held January 27, 1997 APPROVED the request for a Rezoning on property located along the west side of the proposed west leg of the beltway, between Charleston Boulevard and Cheyenne Avenue, from N-U (Non-Urban) to PC (Planned Community), subject to:

1. Approval of a General Plan amendment to make the zoning consistent with the plan.
2. Conformance to the terms of the Development Agreement for the Summerlin West Planned Community.
3. Prior to or concurrent with development of each parcel/village, appropriate right-of-way dedications, street improvements, drainage plan/study submittals, drainage improvements, sanitary sewer collection system extensions and traffic impact analyses including traffic mitigation plans along with signal participation schedules and pedestrian circulation plans may be required by the Department of Public Works. Comply with such requirements when imposed and/or when compliance is indicated.
4. Provide a minimum of two lanes of paved legal access from an existing paved public street to each individual development area prior to occupancy of any buildings within each development area as required by the Department of Public Works.



400 E. STEWART AVENUE • LAS VEGAS, NEVADA 89101-2986
(702) 229-6011 (VOICE) • (702) 386-9108 (TDD)

Mr. Jeffery S. Geen
Howard Hughes Properties, Limited Partnership
February 11, 1997
RE: Z-119-96 - ZONING RECLASSIFICATION RELATED TO GPA-52-96
Page 2.

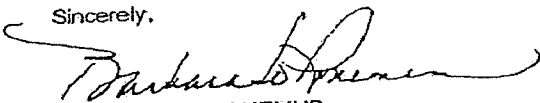
5. An Update to the previous Summerlin Flood Control Master Plan must be submitted to and approved by the Department of Public Works prior to the issuance of any site grading or building permits or the recordation of a Master Final Map, whichever may occur first, as required by the Department of Public Works. Additionally, specific village and/or site drainage plan/studies will be required with each individual pod or phase of development activity.
6. A Master Traffic Impact Analysis for this overall rezoning site (including sections addressing proposed street widths, locations of turn lanes, Las Vegas Beltway Project impacts, proposed traffic signal locations, proposed multi-use trail corridors and a master pedestrian circulation plan including pedestrian/school crosswalks) shall be submitted to and approved by the Department of Public Works prior to the recordation of any maps dedicating public street right-of-ways. The Master Developer shall be responsible for its proportionate share of all related signal systems with construction and funding details to be contained in a written agreement to be developed within the Master Traffic Impact Analysis and acceptable to the Director of Public Works prior to or concurrent with the approval of the Master Traffic Impact Analysis. The Pedestrian Circulation section shall identify the location and width of all proposed pedestrian crossing signals (if any) and how each Village's pedestrian circulation plan integrates with adjoining development areas.
7. Additional "Village" Traffic Impact Analyses must be submitted to and approved by the Department of Public Works prior to the recordation of any maps subdividing any village site. The Village Traffic Impact Analyses shall include a section specifically addressing those subdivisions with single-point entries and provide an Access Analysis for those sites. The Village analyses shall also include a section addressing Standard Drawings #201.1, #234.1 and #234.2 to determine additional right-of-way requirements adjacent to each village, if any; dedicate all areas recommended by the approved Village Traffic Impact Analyses. Phased compliance will be allowed if recommended by the approved Village Traffic Impact Analyses. No recommendation of the approved Village Traffic Impact Analyses or the Master Traffic Impact Analysis, nor compliance therewith, shall be deemed to modify or eliminate any condition of approval imposed by the Planning Commission or the City Council on the development of this site.
8. All landscaping within public rights-of-way or common areas shall be maintained by the Master Developer or his designee. Encroachment Agreement approval shall be obtained from the City Council prior to installation of any private improvements within public rights-of-way. All installed landscaping, whether in public rights-of-way or within common area properties, shall be situated and maintained so as to not create sight visibility obstructions for vehicular traffic at all development access drives and all adjacent, abutting street intersections.
9. Provide appropriate easements for all public facilities (sewer, drainage, sidewalk, traffic signal, streetlighting, etc.) when and where needed as required by the Department of Public Works.
10. The developer shall submit an application to Amend the current Master Plan of Streets and Highways, as necessary, to allow the proposed development plan submitted with this rezoning application. The application to amend the Master Plan should be submitted following approval of the Master Traffic Impact Analysis.

Mr. Jeffery S. Geen
Howard Hughes Properties, Limited Partnership
February 11, 1997
RE: Z-119-96 - ZONING RECLASSIFICATION RELATED TO GPA-52-96
Page 3.

11. The approval of all Public Works related improvements shown on this rezoning map is in concept only. Specific design and construction details relating to size, type and/or alignment of public improvements, including but not limited to street, sewer and drainage improvements, shall be resolved prior to approval of the construction plans by the City. All deviations from adopted Summerlin and/or City Standards must receive approval from the City Planning Commission or the City Engineer prior to the recordation of a Final Map or the approval of subdivision-related construction plans, whichever may occur first. We reserve the right to impose additional conditions of approval for each individual development site when such plans are known. We anticipate the need for additional conditions concurrent with approval of the Master Tentative Map(s) and/or Village Map(s) for this site.

12. Resolution of Intent with no time limit.

Sincerely,



BARBARA JO RONEMUS *RSR*
City Clerk

/cmp

cc: Planning & Development Dept.
Dept. of Public Works
Dept. of Fire Services
Land Development Services

PLANNING &
DEVELOPMENT



Development
Services Center

731 S. Fourth Street
Las Vegas, NV 89101

TTY 702-386-9108
Voice:
Administration 229-6353
Comp Planning 229-6022
Current Planning 229-6301
www.ci.las-vegas.nv.us

September 24, 2003

Mr. Gerald Robbins
Howard Hughes Properties
10000 West Charleston Blvd, Suite 200
Las Vegas, Nevada 89135

RE: MOD-2994

Dear Mr. Robbins:

Your request for a review of a Minor Modification to the Paseos at Summerlin Village 23A and 23B Land Use Plan for Parcels: "K" From: SFA (Single Family Attached) To: SF2 (Single Family Residential); "T" From: SFA (Single Family Attached) To: MF2 (Multi-Family Medium Density); "U" and "V" From: SF3 (Single Family Residential) to MF2 (Multi-Family Medium Density); "W" From: SFA (Single Family Attached) to SF3 (Single Family Residential); "X" From: MF2 (Multi-Family Medium Density) to SF3 (Single Family Residential); and "WS-1" From: NF (Neighborhood Focus) to SF3 (Single Family Residential) was considered by the Planning and Development Department.

The Planning and Development Department administratively APPROVED the request, subject to the following condition:

1. Conformance to all applicable Conditions of Approval for Zoning Application Z-0119-96, Summerlin Development Plan Review SV-0018-01 and the Summerlin Development Standards.

This action by the Planning and Development Department is final.

Sincerely,

Linda Hartman-Maynard, Planner II
Planning and Development Department
Current Planning Division

LHM:sd

cc: Mr. Bert Hughes
G.C. Wallace, Inc.
10000 West Charleston Boulevard, Suite 130
Las Vegas, Nevada 89135

Mayor
Oscar B. Goodman
City Council
Gory Reese
Mayor Pro-Tem
Larry Brown
Lynette Boggs McDonald
Lawrence Weekly
Michael Mack
Janel Moncrief
City Manager
Douglas A. Selby

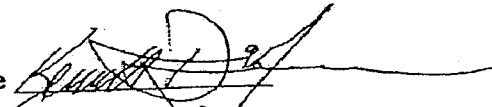


07101-001-6/03

RE: Permission to Grade Letter

To Whom It May Concern:

As owner of the properties designated by Assessor's Parcel Number 137-22-000-010, We have no objection to allowing The Howard Hughes Corporation to grade a drainage swale and berm as shown on the attached "Barcellona - Unit 1 @ The Paseos" grading plans (See attached Exhibit).

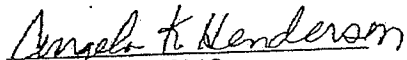
Signature 

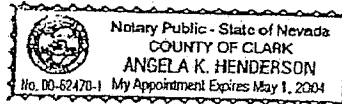
Print Name Ken Dufresne

Title Dir. of Construction

Date 12-2-03

On this 2 day of December 2003, before me personally appeared Benneth Dufresne known to me to be the person who executed the above document.


NOTARY PUBLIC





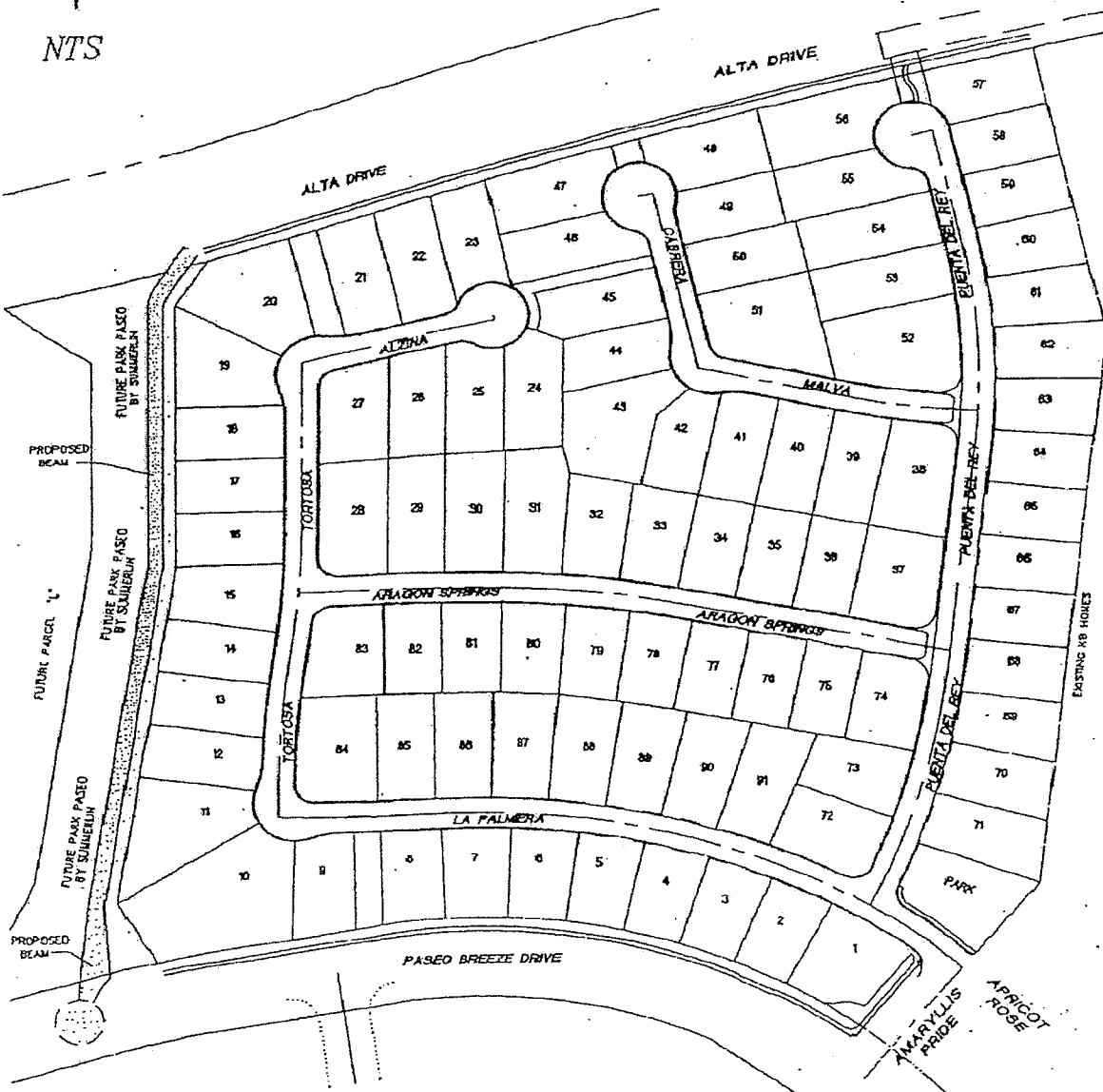
NTS

DEVELOPER:

THE HOWARD HUGHES CORPORATION,
A DELAWARE CORPORATION
10000 W Charleston Blvd Ste. 200
Las Vegas, Nevada 89135-1004
(702) 791-4200

ENGINEER:

Carter & Burgess
Consultants in Planning, Engineering,
Construction Management, and Related Services
6655 Bermuda Road, Las Vegas, NV. 89119
(702) 938-5400 Fax (702) 938-5454



BARCELONA @ THE PASEOS
OFF SITE BERM EXHIBIT

Carter & Burgess

Carter & BurgessConsultants in Planning, Engineering,
Construction Management, and Related Services**FAX TRANSMITTAL**

Project Parcel "J" @ Village 23A (Barcelona @ The Paseos) Project # 240857

TO: Albert Sung FAX: 382-8551
City of Las Vegas

FROM: John Land, E.I. DATE: 1/29/04
Phone 938-5591; Fax 938-5537

Total number of pages transmitted, including this page:

1**REMARKS:**

Albert,

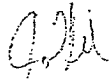
Per our conversation this morning, here is the quantity and construction estimate for the offsite berm at Barcelona.

<u>Item</u>	<u>Quantity</u>	<u>Construction cost</u>
Rip-rap, 2.4' thick, D50=1.2'	1416 CY	\$75,756
Earthwork for berm	1400 CY	\$ 3,500
		<u>\$ 79,256 Total cost</u>

Please call me if you need any more information!

→ Bond Amount: \$25,000

Thanks,



John

Carter & Burgess, Inc.
6655 Bermuda Road, Las Vegas, Nevada 89119
Phone: (702) 938-5400 Fax: (702) 938-5454

MAINTENANCE & LIABILITY
AGREEMENT REQUEST

TO BE COMPLETED BY FLOOD CONTROL:

PROJECT: PARCELS A - 1011

DATE ORDERED 1-22-04 CONTACT: BHW LAND 938-5591

DS# 34320 DATE DS APPROVED 1/27/2004 LD# _____

Owner/Developer: HOWARD HUGHES CORP.

EXHIBIT "A" DATE SUBMITTED: 1/26/2004

SURETY TYPE: _____ AMOUNT: 25,000 OR 25% OF THE
APN: 137-22-000-010 IMP. CONSTRUCTION
COST - WHICHEVER
IS GREATER

TO BE COMPLETED BY LAND DEVELOPMENT:

BONDING CO: _____ BOND # _____

BOND FILE # _____ ☐

AGREEMENTS PREPARED: _____ ON COMP? ☐

AGREEMENTS SUBMITTED: _____ RETURNED: _____

AGREEMENTS RE-SUBMITTED: _____

ATTORNEYS TO: _____ FROM: _____ ON COMP? ☐

CHECK P/C SCREEN AND UPDATE NOTATIONS REGARDING BONDS: ☐

CLERKS: TO: _____ FROM: _____

COPY MAILED TO OWNER: _____

PLANNING &
DEVELOPMENT



Development
Services Center

731 S. Fourth Street
Las Vegas, NV 89101

TDD 702-386-9108

Voice:
Administration 229-6353
Comp Planning 229-6022
Current Planning 229-6301
www.ci.las-vegas.nv.us

March 15, 2002

Mr. Gerald M. Robbins
The Howard Hughes Corporation, a Delaware Corporation
10000 West Charleston Boulevard, Suite #200
Las Vegas, Nevada 89135

RE: TENTATIVE MAP - SUMMERLIN VILLAGE 23A - TM-0006-02

Dear Mr. Robbins:

Your request for a Tentative Map on 389.40 acres adjacent to the northwest corner of Charleston Boulevard and Desert Foothills Drive, PC (Planned Community) Zone, Ward 2 (L.B. McDonald), was considered by the Planning Commission on March 14, 2002.

The Planning Commission voted to **APPROVE** your request, subject to the following:

Planning and Development

1. Approval of the Tentative Map shall be for no more than two (2) years. If a Final Map is not recorded on all or a portion of the area embraced by the Tentative Map within two (2) years of the approval of the Tentative Map, a new Tentative Map must be filed.
2. All development shall conform to the Conditions of Approval for Rezoning (Z-0119-96), Summerlin Development Plan Review (SV-0018-01) and the Summerlin Development Standards.
3. Street names must be provided in accordance with the City's street naming regulations.
4. All development is subject to the conditions of City departments and State Subdivision Statutes.
5. A fully operational fire protection system, including fire apparatus roads, fire hydrants and water supply, shall be installed and shall be functioning prior to construction of any combustible structures.

Mayor
Oscar B. Goodman

City Council
Gary Reese

Mayor Pro-Tem

Michael J. McDonald

Larry Brown

Lynette Boggs McDonald

Lawrence Weekly

Michael Mack

City Manager
Virginia Valentine



07101-001-2/01

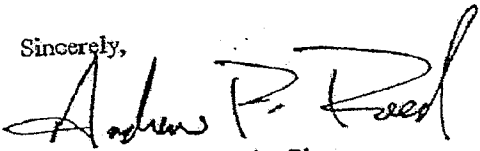
Public Works

6. Dedicate appropriate public street right-of-ways and construct public and private streets in accordance with Summerlin Development and Improvement Standards.
7. The location and design of all proposed roadway intersections with Charleston Boulevard shall meet the approval of the Nevada Department of Transportation.
8. A minimum of two lanes of pavement along Desert Foothills Drive to the existing pavement on Far Hills Avenue shall be completed prior to the development causing the intersection of Desert Foothills/Charleston Boulevard to exceed design capacity, as established in the Village Master Traffic Study.
9. The construction of the collector road on the western edge of this village may be deferred; final determination of construction requirements shall be determined at the time of approval of the Traffic Study for the future villages adjacent to the west edge of this site of at the time of approval of a Tentative Map for such future villages, whichever is first.
10. A Master Streetlight Plan for Summerlin Village 23 must be approved prior to the submittal of any improvement plans.
11. A Master Drainage Plan and Technical Drainage Study and a Master Traffic Impact Analysis must be approved by the Department of Public Works prior to the recordation of any Final Map creating any development pod sites anywhere on the overall tentative map subdivision site.
12. Site development to comply with all applicable conditions of approval for SV-18-01, Z-119-96, and all applicable Summerlin Standards.
13. The approval of all Public Works related improvements shown on this Tentative Map is in concept only. Specific design and construction details relating to size, type and/or alignment of public improvements, including but not limited to street, sewer and drainage improvements, shall be resolved prior to approval of the construction plans by the City. No deviations from adopted City Standards shall be allowed unless specific written approval for such is received from the City Engineer prior to the recordation of a Final Map or the approval of subdivision-related construction plans, whichever may occur first.

Mr. Gerald M. Robbins
TM-0006-02 - Page Three
March 15, 2002

This action by the Planning Commission on March 14, 2002 is final unless a written appeal is filed with the City Clerk within seven days of the date of the Planning Commission's decision or there is a review action filed by the City Council within the same time period.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew P. Reed". The signature is fluid and cursive, with the first name "Andrew" and last name "Reed" clearly distinguishable.

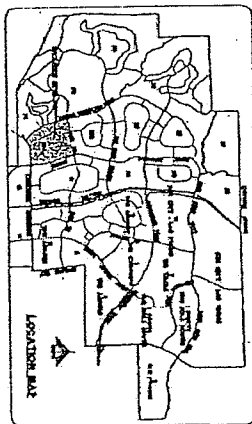
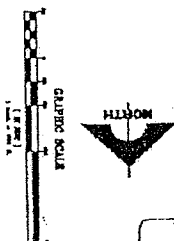
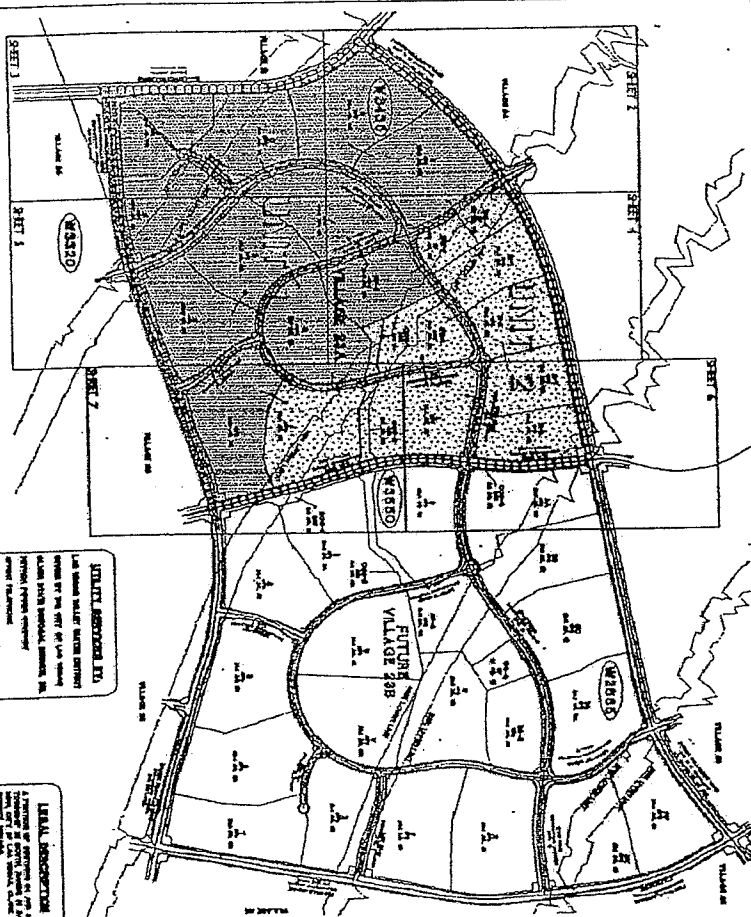
Andrew P. Reed, Senior Planner
Planning and Development Department
Current Planning Division

APR:clb

cc: Mr. Bert Hughes
G.C. Wallace, Inc.
10000 West Charleston Boulevard, Suite #130
Las Vegas, Nevada 89135

TM-0006-02

3-14-02 PC
STAFF



LEGEND

1. All areas shown on this map are subject to the provisions of the Tentative Map Act, Chapter 91A, R.S., and the provisions of the Tentative Map Act, Chapter 91A, R.S., and the provisions of the Tentative Map Act, Chapter 91A, R.S.

2. The Tentative Map Act, Chapter 91A, R.S., provides that the Tentative Map Act, Chapter 91A, R.S., and the provisions of the Tentative Map Act, Chapter 91A, R.S., and the provisions of the Tentative Map Act, Chapter 91A, R.S.

3. The Tentative Map Act, Chapter 91A, R.S., provides that the Tentative Map Act, Chapter 91A, R.S., and the provisions of the Tentative Map Act, Chapter 91A, R.S., and the provisions of the Tentative Map Act, Chapter 91A, R.S.

VILLAGE 23A LAND USE TABULATION			
UNIT / AREA	LAND USE	ACRES / PERCENT	TOTAL
1	RESIDENTIAL	1.2	1.2
2	RESIDENTIAL	1.2	1.2
3	RESIDENTIAL	1.2	1.2
4	RESIDENTIAL	1.2	1.2
5	RESIDENTIAL	1.2	1.2
6	RESIDENTIAL	1.2	1.2
7	RESIDENTIAL	1.2	1.2
8	RESIDENTIAL	1.2	1.2
9	RESIDENTIAL	1.2	1.2
10	RESIDENTIAL	1.2	1.2
11	RESIDENTIAL	1.2	1.2
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86	RESIDENTIAL	1.2	1.2
87	RESIDENTIAL	1.2	1.2
88	RESIDENTIAL	1.2	1.2
89	RESIDENTIAL	1.2	1.2
90	RESIDENTIAL	1.2	1.2
91	RESIDENTIAL	1.2	1.2
92	RESIDENTIAL	1.2	1.2
93	RESIDENTIAL	1.2	1.2
94	RESIDENTIAL	1.2	1.2
95	RESIDENTIAL	1.2	1.2
96	RESIDENTIAL	1.2	1.2
97	RESIDENTIAL	1.2	1.2
98	RESIDENTIAL	1.2	1.2
99	RESIDENTIAL	1.2	1.2
100	RESIDENTIAL	1.2	1.2

SUMMERLIN
VILLAGE 23A
TENTATIVE MAP
07-28-2002
SHEET 1 OF 8



January 17, 2002

Mr. Gerald M. Robbins
The Howard Hughes Corporation
10,000 West Charleston Boulevard, Suite 200
Las Vegas, Nevada 89135

RE: SV-0018-01 - MASTER DEVELOPMENT PLAN REVIEW
CITY COUNCIL MEETING OF JANUARY 16, 2002

Dear Mr. Robbins:

The City Council at a regular meeting held January 16, 2002 APPROVED the request for a Master Development Plan Review to establish Land Use designations within Summerlin Villages 23A and 23B, comprising 856 Acres located adjacent to the northwest corner of Charleston Boulevard and Desert Foothills Drive. The Notice of Final Action was filed with the Las Vegas City Clerk on January 17, 2002. This approval is subject to:

Planning and Development

1. All development shall conform to the revised Summerlin Development Standards.

Public Works

2. Prior to or concurrent with development of each parcel/village, appropriate right-of-way dedications, street improvements, drainage plan/study submittals, drainage improvements, sanitary sewer collection system extensions and traffic impact analyses including traffic mitigation plans along with signal participation schedules and pedestrian circulation plans may be required by the Department of Public Works. Comply with such requirements when imposed and/or when compliance is indicated.
3. Provide a minimum of two lanes of paved legal access from an existing paved public street to each individual development area prior to occupancy of any buildings within each development area.
4. A Master Sewer Plan for the overall 861.5 acres must be submitted to and approved by the Department of Public Works prior to the issuance of any site grading or building permits or the recordation of a Master Final Map, whichever may occur first. Additionally, specific village and/or site sewer plan/studies will be required with each individual pod or phase of development activity based upon sewer capacities at the time of development. The existing sewer lines anticipated to service this development will not support the proposed densities.

CITY OF LAS VEGAS
400 STEWART AVENUE
LAS VEGAS, NEVADA 89101

VOICE 702.229.6011
TDD 702.386.9108
www.ci.las-vegas.nv.us

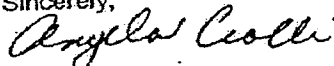
12-012-11/00

5. An Update to the previous Summerlin Flood Control Master Plan must be submitted to and approved by the Department of Public Works prior to the issuance of any site grading or building permits or the recordation of a Master Final Map, whichever may occur first. Additionally, specific village and/or site drainage plan/studies will be required with each individual pod or phase of development activity.
6. A Traffic Impact Analysis for this overall site must be submitted to and approved by the Department of Public Works prior to the recordation of any maps dedicating public right-of-ways and/or subdividing any village site. The Traffic Impact Analysis shall include sections addressing impacts to the proposed roadway network based on the maximum densities, proposed street widths, proposed traffic signal locations, proposed multi-use trail corridors and a master pedestrian circulation plan including pedestrian/school crosswalks. The Traffic Impact Analysis shall include a section specifically addressing the subdivisions with single-point entries and provide an Access Analysis for those sites. The Traffic Impact Analysis shall also include a section addressing Standard Drawings #201.1, #234.1 and #234.2 to determine additional right-of-way requirements adjacent to each village, if any; dedicate all areas recommended by the approved Traffic Impact Analysis. The Master Developer shall be responsible for its proportionate share of all related signal systems with construction and funding details to be contained in a written agreement to be developed within the Traffic Impact Analysis and acceptable to the Director of Public Works prior to or concurrent with the approval of the Traffic Impact Analysis. The pedestrian circulation plan section shall identify the location, width and funding sources of all proposed pedestrian crossing signals (if any) and how each village's pedestrian circulation plan integrates with adjoining development areas. Phased compliance will be allowed if recommended by the approved Traffic Impact Analysis. No recommendation of the approved Traffic Impact Analysis shall be deemed to modify or eliminate any condition of approval imposed by the Planning Commission or the City Council on the development of this site.
7. All landscaping within public rights-of-way or common areas shall be maintained by the Master Developer or his designee. Encroachment Agreement approval shall be obtained from the City Council prior to installation of any private improvements within public rights-of-way. All installed landscaping, whether in public rights-of-way or within common area properties, shall be situated and maintained so as to not create sight visibility obstructions for vehicular traffic at all development access drives and all adjacent, abutting street intersections.
8. Provide appropriate easements for all public facilities (sewer, drainage, sidewalk, traffic signal, street lighting, etc) when and where needed.
9. The developer shall submit an application to Amend the current Master Plan of Streets and Highways, as necessary, to allow the proposed development plan submitted with this rezoning application. The application to amend the Master Plan should be submitted following approval of the Master Traffic Impact Analysis.

Mr. Gerald M. Robbins
SV-0018-01 -- Page Three
January 17, 2002

10. The approval of all Public Works related improvements shown on this rezoning map is in concept only. Specific design and construction details relating to size, type and/or alignment of public improvements, including but not limited to street, sewer and drainage improvements, shall be resolved prior to approval of the construction plans by the City. All deviations from adopted Summerlin and/or City Standards must receive approval from the City Planning Commission or the City Engineer prior to the recordation of a Final Map or the approval of subdivision-related construction plans, whichever may occur first. We reserve the right to impose additional conditions of approval for each individual development site when such plans are known. We anticipate the need for additional conditions concurrent with approval of the Master Tentative Map(s) and/or Village Map(s) for this site.

Sincerely,



ANGELA CROLLI
DEPUTY CITY CLERK II for
BARBARA JO RONEMUS, CITY CLERK

cc: Planning and Development Dept.
Development Coordination-DPW
Dept. Of Fire Services

Mr. Bert A. Hughes
G. C. Wallace, Inc.
10,000 West Charleston Boulevard, Suite 130
Las Vegas, Nevada 89135

**TECHNICAL DRAINAGE STUDY
FOR
SUMMERLIN VILLAGE 23A
UNIT 2 IMPROVEMENTS**

62023.222

August 2003

Prepared for:

**The Howard Hughes Corporation
a Delaware Corporation
10000 West Charleston Blvd., Ste. 200
Las Vegas, Nevada 89135
Phone: (702) 791- 4300
Fax: (702) 791- 4453**



G. C. WALLACE, INC.
Engineers/Planners/Surveyors

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM				DATE: September 5, 2003	
TO: Land Development Services Department of Public Works				FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works	
SUBJECT: Technical Drainage Study for: Summerlin Village 23A - Unit 2 Improvements				COPIES TO: G.C. Wallace	
Cross Streets: Desert Foothills Drive & Alta Drive				Howard Hughes Corp.	
FILE NO.: F:\Depot\DSMEMOS\DS3402A.doc				Bart Anderson, P.E., DEVCO	
Parcel Number: 137-22-000-010				CCRFC	
Zoning Action:				B&H	
FEMA Flood Zone		YES	No	X	
Proposed Storm Drain		YES	X	No	
HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID G.R. #
1 st Submittal	8/8/2003	8/26/2003	See Comments Below	\$250.00	109118: \$250
TOTAL FEES (LDDRS):				\$250.00	

REMARKS:

The Drainage Study for the subject project has been reviewed and:

	is approved subject to conformance to all City standards and the following conditions.
	must be resubmitted or supplemented including the following:
X	is conditionally approved subject to Clark County Regional Flood Control District concurrence

1. This drainage study is acceptable in concept, however, the City of Las Vegas will not formally accept the study until the Clark County Regional Flood Control District (CCRFC) has issued a letter of concurrence. The Engineer should contact the CCRFC to confirm that they have begun their review.
2. All the interim berms and storm drains are owned and to be maintained by Howard Hughes Corporation.

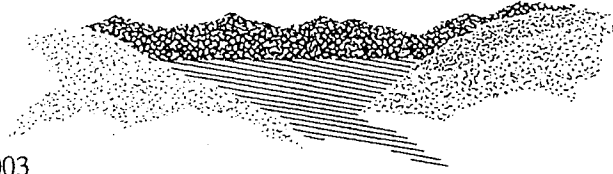
END OF REMARKS

B&H

T/R/S: T20S/R59E/22
AREA K-22

Post-It® Fax Note 7671		Date 9/5/03	# of pages 1
To Amanda	From Albert Sung		
Co./Dept. G.C.W.	Co. CCV		
Phone #	Phone # 229-201		
Fax # 804-2297	Fax #		

C L A R K C O U N T Y
REGIONAL FLOOD CONTROL DISTRICT



Gale Wm. Fraser, II, P.E.
General Manager/Chief
Engineer

BOARD OF DIRECTORS

Larry Brown
Chairman
City of Las Vegas

Chip Maxfield
Vice-Chairman
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Shari Buck
City of North Las Vegas

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City of Boulder City

Mayor James Gibson
City of Henderson

Michael Mack
City of Las Vegas

Mayor Bill Nicholes
City of Mesquite

Bruce L. Woodbury
Clark County

October 6, 2003

Mr. Randy Fultz, P.E.
City of Las Vegas Public Works
731 S. Fourth St
Las Vegas, NV 89101

**DISTRICT CONCURRENCE: SUMMERLIN VILLAGE 23A UNIT 2 IMPROVEMENTS
(DS3402) (RFC D No. 03-5424)**

Dear Mr. Fultz:

Clark County Regional Flood Control District (District) reviewed Technical Drainage Study dated September 5, 2003, for the above-mentioned project as submitted by G. C. Wallace, Inc. In addition, District is in receipt of the Conditional Letter of Acceptance from City of Las Vegas Public Works dated September 5, 2003.

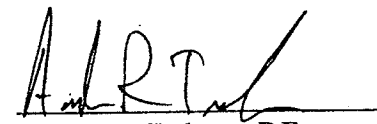
District concurs with acceptance of this Technical Drainage Study by City of Las Vegas Public Works.

District's review of this project was limited to issues of Regional Flood Control Significance as defined in *Uniform Regulations for the Control of Drainage*.

Please be aware that as additional information becomes available and/or restudies of Flood Insurance Studies are performed, information submitted by G. C. Wallace, Inc. may be superseded. Compliance with regulatory elements and design standards specified in *Uniform Regulations for the Control of Drainage* does not imply a guarantee that properties will be free from flooding or flood damage. The District, its officials, or employees assume no liability for information, data, or conclusions presented by consulting engineers. We, therefore, make no warranties, either expressed or implied, in conducting this review.

GALE WM. FRASER, II, P.E.
General Manager/Chief Engineer

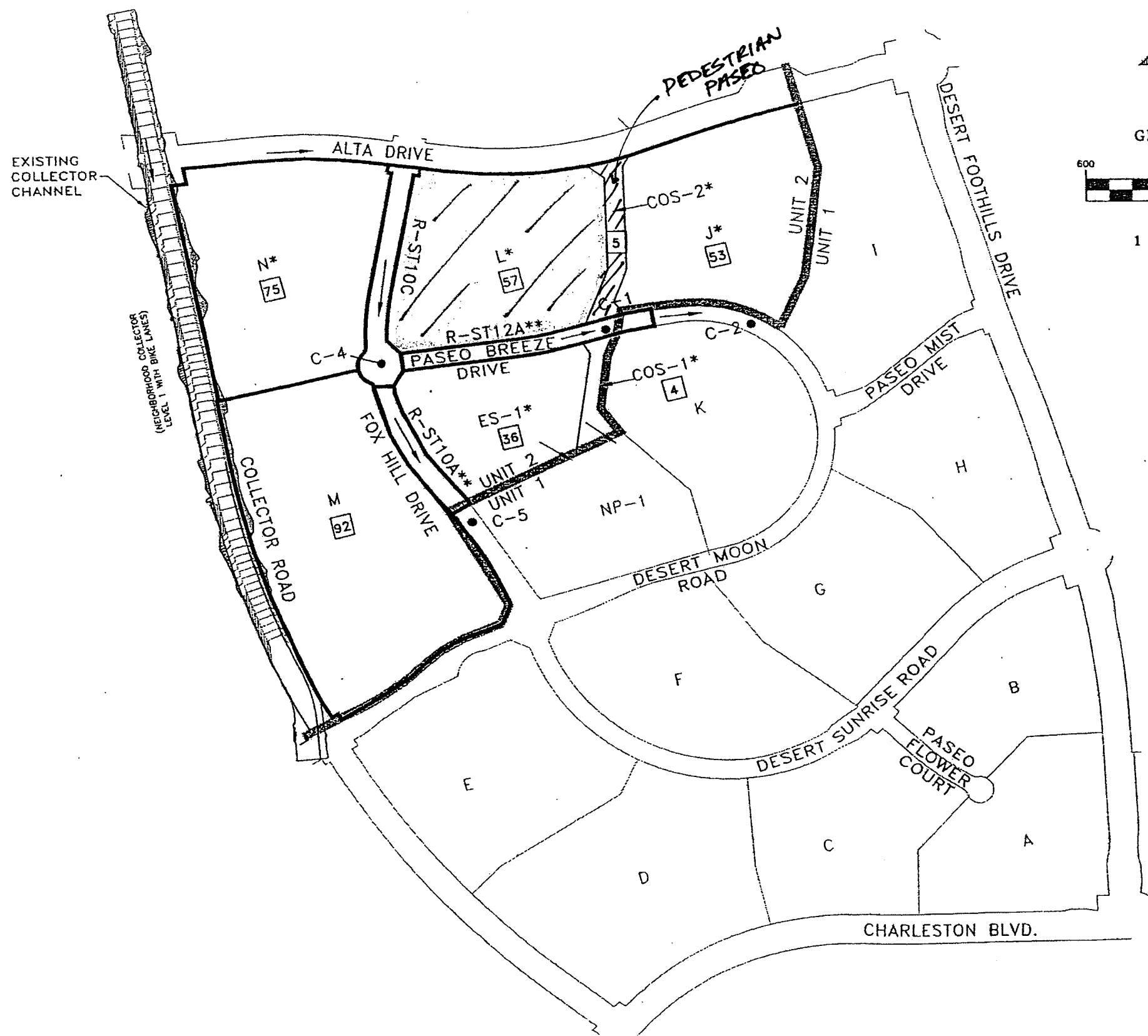
BY:


Andrew R. Trelease, P.E.
Senior Civil Engineer

ART:css

c: Randall K. Gremlich, P.E., G. C. Wallace, Inc.

File: 20-59-22.GCW



SUMMARY OF HEC-1 MODEL

BASIN OR LOC.	Q100 (CFS)	Q10 (CFS)
RST10C	13	6
N*	75	33
C-4	88	40
RST10A**	8	4
M	92	36
C-5	178	76
L*	57	24
RST12A**	10	5
COS-2*	5	2
C-1	68	29
J*	53	21
C-2	121	51
ES-1*	36	15
COS-1*	4	1

* TAKEN DIRECTLY FROM THE CONCEPTUAL STUDY

**TAKEN DIRECTLY FROM THE UNIT 1 STUDY

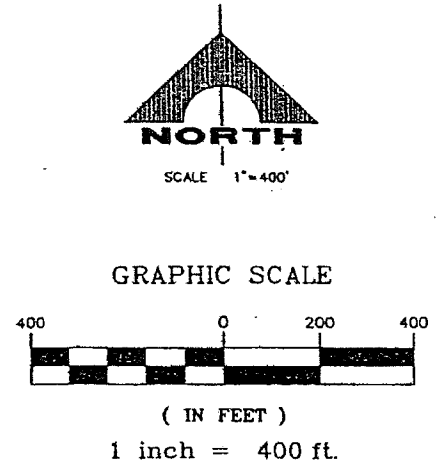
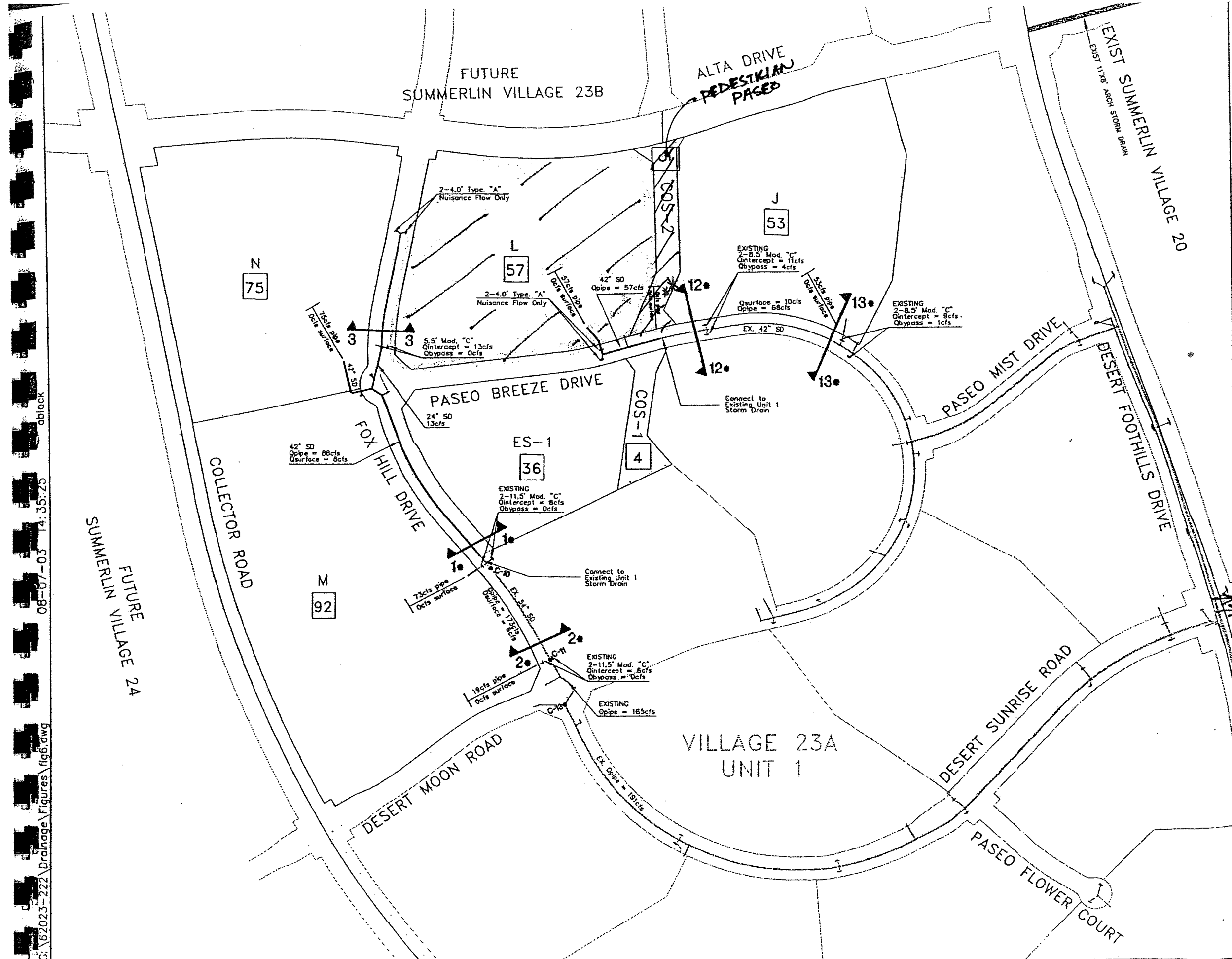
LEGEND

- R-ST11B REVISED DRAINAGE BASINS
- COM1 CONCENTRATION POINT
- SUBBASIN BOUNDARY
- UNIT BOUNDARY
- 5 MAXIMUM DISCHARGE FROM PARCEL
- FLOW DIRECTION

SUMMERLIN VILLAGE 23A
UNIT 2 IMPROVEMENTS

FIGURE 5
DRAINAGE BASINS FOR
DROP INLET SIZES

G.C. WALLACE, INC.
Engineers/Planners/Surveyors



- LEGEND**
- A PARCEL NAME
 - PROPOSED STORM DRAIN
 - MAXIMUM PIPE DISCHARGE
MAXIMUM SURFACE DISCHARGE
 - PARCEL DISCHARGE
 - 13 MAXIMUM COMBINED DISCHARGE FROM PARCEL
 - 3 3 STREET CROSS SECTION LOCATION
 - EXISTING STORM DRAIN

STREET CROSS SECTION SUMMARY

X-SECT LABEL	SLOPE %	Q100(cfs)	D100(ft)	V100(fps)	VxD
1*	4.9	28	0.44	5.9	2.6
2*	1.0	17	0.48	2.9	1.4
3	5.3	13	0.35	5.1	1.8
12*	2.7	15	0.40	4.1	1.6
13*	6.0	20	0.39	5.9	2.3

* ANALYZED IN THE UNIT 1 STUDY

*** Per UP3-Andalusia Study
10cfs @ Section 12
COS-2 will be collect
by storm drain instea
of surface flow*

SUMMERLIN VILLAGE 23A
UNIT 2 IMPROVEMENTS

FIGURE 6
DRAINAGE FACILITIES MAP

C:\62023-222\Drawings\Figures\fig6.dwg 08-07-03 14:35:25 ablock

Paseo Breeze Drive

The existing 42-inch storm drain designed in the Unit 1 study will be extended into Unit 2 along Paseo Breeze Drive in order to serve Parcel L. The ultimate development of Parcel L may discharge a maximum of 57 cfs into the 42-inch storm drain lateral. Along with the 42-inch lateral two 4-foot Type "A" drop inlets are proposed to intercept nuisance flow. The total flow in the 42-inch main line is 57 cfs.

* Per Andel
UP2 -
Flow from
Parcel "L"
is 51 cfs
Storm Dr

Sections 12 and 13 were analyzed and approved in the Unit 1 Study. This study is not altering and accepts anything that was previously proposed in the Unit 1 Study. Therefore, no further analysis is necessary. Storm drain calculations are provided for the extension of the 42-inch storm drain. Referenced drop inlet street depth calculations and storm drain for the existing line are provided in Appendix C.

VIII. INTERIM CONDITIONS

The interim analysis is based on the hydrology completed for the Summerlin Village 23A Rough Grade Study and the Unit 1 Study.

Figure 7 shows the referenced basins combined with the basins for the proposed improvements. The referenced HEC-1 model and supporting calculations are attached in Appendix C. The assumption is made that the Unit 1 Improvements will be constructed prior to or concurrently with this project.

The following is a list of the measures that will be required to intercept storm flows in the interim conditions:

- ♦ The 42-inch lateral to Parcel M will be left exposed.
- ♦ The 42-inch lateral to Parcel L will be left exposed.
- ♦ The 42-inch lateral to Parcel N will be left exposed.
- ♦ A 2.0-foot high berm along the southern boundary of Parcel M will remain from the Unit 1 study.
- ♦ A 2.0-foot high berm along the southern boundary of Parcel NP-1 will remain from the Unit 1 study.
- ♦ A 2.2-foot high berm along the eastern boundary of Parcel N will be constructed to direct flow to the exposed 42-inch lateral.
- ♦ A 2.2-foot high berm along the eastern boundary of Parcel M will be



Paseo Breeze Drive

Hydraulic Calculations for Example in Section 807.2 of CCRFCD Manual

[illegible]

Parcel
"L"
(per UP2)

Parcel
COS-2A
+
COS-2B
(per up3)

Storm Drain Hydraulic Calculations

Summary of Results

STATION	INVERT	SOFFIT	EGL	HGL	(Optional)			HGL with respect to FG	Pressure Gaskets Required ?
					GRADE	LOCATION	STATION		
1000.00	218.86	222.36	223.59	223.04	229.5	Connect to Ex 42" SD	Sta. 145+85	OK	NO
1025.00	219.51	223.01	223.68	223.13	230.0	SDMH #11	Sta. 146+10	OK	NO
1256.52	225.48	228.98	229.53	228.98	236.2	SDMH #12	Sta. 148+41	OK	NO
1278.52	225.92	229.42	229.97	229.42	236.2	4" Type "A" DI	Sta. 148+41	OK	NO
1317.52	227.78	231.28	231.83	231.28	236.6	Concrete Collar #1	Sta. 148+41	OK	NO
1397.52	244.50	248.00	248.55	248.00	250.0	Lateral to Parcel L		OK	NO
1397.52	244.50	248.00	248.68	248.68	250.0			OK	NO

Starting
HGL
for Parcel "L"
Shub

LETTER OF TRANSMITTAL



G. C. WALLACE COMPANIES
ENGINEERS | PLANNERS | SURVEYORS

Project No.: 62023-980
Date: January 11, 2011

G. C. WALLACE, INC.
G. C. WALLACE OF CALIFORNIA, INC.
G. C. WALLACE HOLDINGS, INC.

To: **City of Las Vegas**
City of Las Vegas - Land Development Services
Department of Public Works
731 South Fourth Street
Las Vegas, Nevada 89101

Writer's Contact Information:

702.804.2000

Attention: Albert Sung, PE

Subject: Technical Drainage Study for Summerlin Village 23A - Unit 2 Improvements

Sent Via: Hand Delivery

Items being sent:

One (1) Copy – Update to the Subject Study
One (1) Copy – Improvement Plans (bound)
One (1) Copy – Stamped and Signed Standard Form 1 (bound)
Check (#98744) for \$100

These items are submitted:

- | | |
|--|--|
| ☐ At your request | ☐ For your action |
| ☐ For your approval | ☒ For your files |
| ☒ For your review and comments | ☐ For your information |

Acknowledgment of receipt:

☒ **Required**

Received by: _____

Date: _____

Time: _____

Remarks:

Cordially,

G. C. WALLACE COMPANIES

Rachael R. Dennis, PE
Project Manager
Flood Control Division

rrd

Copies to: Jerry Pruitt, GCW
Ryan Belsick, GCW
Josh Johnson, GCW
Jonathan Tull, GCW
Cyndee Miller, GCW

** Duplicate Receipt **

City of Las Vegas

Development Services Center

731 South Fourth Street

Las Vegas, NV 89101

@1/12/2011 11:17 Trn 160693

Cashier 970040

PRJ Permit # DS4050-1 \$100.00

Subtotal \$100.00

Tax \$0.00

Total \$100.00

Received CHECK \$100.00

Check # 98744

Change \$0.00

For questions related to this receipt call

702-229-6251